

BIOSKETCHES OF SPEAKERS, PANELISTS, CHAIRPERSONS, FACILITATORS, AND RAPPORTEURS

David B. Belzer, Ph.D.

Staff Economist, Pacific Northwest National Laboratory

David B. Belzer is a staff economist at the Pacific Northwest National Laboratory (PNNL) in Richland, Washington. He received his Ph.D. in economics from the University of Maryland in 1978. Much of his work at PNNL has involved energy and economic analysis of commercial buildings. In the early 1990s, Dr. Belzer directed the development of estimates of end-use energy consumption for several national samples of commercial buildings. Dr. Belzer is currently working on software tools to facilitate economic assessments of updated commercial building standards. He is also involved in PNNL's efforts to estimate the potential benefits of DOE's efficiency programs related to the building sector.

Gale A. Boyd, Ph.D.

Decision and Information Sciences Division, Argonne National Laboratory

Gale Boyd has been an economist at ANL for 18 years. He received a B.S. in Mathematics and a Ph.D. in Economics from Southern Illinois University. His research activities include microeconomic modeling of industrial energy demand, emissions, and productivity. Dr. Boyd is a Research Fellow at the Center for Economic Studies at the Bureau of the Census, where he directs research that applies frontier production function approaches to the confidential industrial plant-level data. He contributed to Scenarios of U.S. Carbon Reductions and Scenarios for a Clean Energy Future, in addition to other journal articles, DOE and ANL reports.

Douglas R. Brookman

President, Public Solutions

Doug Brookman is President of Public Solutions, Inc., a collaborative problem solving firm located in Baltimore, Maryland. Public Solutions facilitates decision making among divergent interests to serve technical, human and political needs.

Mr. Brookman combines fifteen years experience as a professional mediator/facilitator with ten years of intensive work experience finding workable solutions in complex public decision making contexts. His specialty is facilitating large, complex public processes to graceful solutions. He has significant experience managing complex tasks and large teams of professionals. His work is focused at the intersection of energy and environment where technology is a driving force.

A sampling of his recent federal clients includes the U.S. Departments of Commerce, Education, Energy, Interior, Transportation, Environmental Protection Agency, The President's Council's on Environmental Quality and Sustainable Development, the White House Office of Science and Technology Policy, the National Institute of Standards and Technology and the Nuclear Regulatory Commission.

Prior to founding Public Solutions, Mr. Brookman was Senior Manager/Mediator for the American Energy Assurance Council's (AEAC) National Energy Strategy Consensus Building project. AEAC worked with four federal agencies and 12 national stakeholder groups in a multi-year effort to build consensus among adversaries on national energy strategy. Prior to joining AEAC, Mr. Brookman acquired extensive experience mediating and facilitating a wide range of government, community and commercial disputes at the Dispute Resolution Center in Austin, Texas and in his leadership roles in Texas State Government.

Mr. Brookman completed his Masters Degree in Public Affairs (Economics) at the Lyndon B. Johnson School of Public Affairs at the University of Texas and obtained his B.A. in Sociology at Ohio State University. He is married with two children and lives in Baltimore, Maryland. He is former President of the Maryland Council for Dispute Resolution and a member of the Association for Conflict Resolution and the International Association of Public Participation Practitioners.

Thomas Casten

President and CEO, Trigen Energy Corp

Thomas Casten has spent 25 years developing decentralized heat and power as founding President and CEO of Trigen Energy Corp and its predecessors from 1977 through 2000 and currently as founding Chairman and CEO of Private Power LLC, an Illinois based firm specializing in recycling energy. These organizations have deployed over \$1.0 billion in decentralized heat and power plants that all achieve at least twice the efficiency of the US average electric generation. Tom currently serves as the Chairman of the World Alliance for Decentralized Energy or WADE, an alliance of national and regional combined heat and power associations, wind, photovoltaic and biomass organizations and various foundations and government agencies seeking to mitigate climate change by increasing the fossil efficiency of heat and power generation. Tom holds a BA in Economics from Colorado University and an MBA from Columbia University. Tom's book, "Turning Off The Heat", published by Prometheus Press in 1998, explains how the US can save money and pollution.

Susan M. Cischke

Vice President, Environmental and Safety Engineering, Ford Motor Company

Susan M. Cischke is vice president, Environmental and Safety Engineering for Ford Motor Company, a position to which she was elected in January 2001. In her position, Cischke is responsible for overseeing the company's environmental and safety regulatory efforts. This includes playing a key role in setting corporate policy.

Cischke will be instrumental in Ford's "Cleaner, Safer, Sooner" campaign to take high-volume vehicle actions that address societal concerns and real-world safety opportunities. In addition, with her own long-standing personal commitment to child safety, Cischke will help champion the company's Boost America! program.

Ms. Cischke, 47, joined Ford after serving as senior vice president of Regulatory Affairs and Passenger Car Operations at DaimlerChrysler. She began her career at Chrysler Corp. in 1976 as an engineer with the Chrysler Institute Program. She held various engineering positions and in 1994 was named general manager of Scientific Labs and Proving Grounds. In 1996, she was named vice president of Vehicle Certification, Compliance and Safety Affairs.

Ms. Cischke received a bachelor's and master's degrees in Mechanical Engineering from Oakland University in Rochester, Mich., and the University of Michigan- Dearborn, respectively.

She has won many awards, including the Engineering Society of Detroit's Horace A. Rackham Award for outstanding humanitarian achievements, in 1996. She was the first woman in the 102-year history of the society to win the award.

Cischke is a member of the Society of Automotive Engineers, the Society of Women Engineers, the Oakland University Alumni Association Board, and the Engineering Society of Detroit (ESD).

Dennis Creech

Executive Director, Southface Energy Institute

Mr. Creech was a co-founder of the Southface Energy Institute, a private nonprofit organization conducting education and research in energy, sustainable technologies, and applied building sciences. He has served as Executive Director for over 20 years.

He is a nationally recognized leader in the energy and sustainable development fields. He directed the development of EarthCraft House-Sensibly Built for the Environment. EarthCraft is a voluntary, market-based green builder program sponsored by the Greater Atlanta Home Builders Association, Southface, government and private industry.

Mr. Creech has served on the Board of Directors of the Energy Efficient Building Association, Affordable Comfort, and the Greater Atlanta Home Builders Association, and on numerous policy bodies including the Georgia Regional Transportation Authority Neighborhood and Environment Task Force, the Georgia Advisory Panel on Climate Change, and the Georgia Energy Codes Committee. Mr. Creech has been an Adjunct Professor in the Human and Natural Ecology Program at Emory University and was named 1999 Environmental Professional of the Year by the Georgia Environmental Council.

Mr. Creech frequently speaks on energy and environmental topics ranging from "green" building products to creating sustainable communities, and often serves as a media spokesperson. His "House Doctor" column is a regular feature of the Atlanta Journal Constitution and he is a frequent contributor to trade publications ranging from Environmental Design and Construction to Solar Today.

In 1996, Mr. Creech directed a project to design and construct the Southface Energy and Environmental Resource Center, a state-of-the-art demonstration facility featuring over 100 energy and resource efficient technologies. The Resource Center has been featured worldwide in over 150 media stories and has hosted meetings for groups ranging from the President's Council on Sustainable Development to local affordable housing advocates.

Before co-founding Southface, Mr. Creech was a research associate with the Georgia Tech Engineering Experiment Station and Deputy Director of Atlanta 2000, a nonprofit regional planning organization. He has also worked as a field ecologist conducting research on nutrient cycling in forest ecosystems. He lives in an environmentally-restored 1950s ranch-style home and commutes in an electric vehicle.

Subodh K. Das, Ph.D.

President & CEO of Secat, Inc. and Director of the Center for Aluminum Technology, University of Kentucky

Dr. Subodh Das is the President & CEO of Secat, Inc. and the Director of the Center for Aluminum Technology both based at the University of Kentucky, Lexington, Kentucky. In this capacity, Dr. Das is directing R&D activities for 16 aluminum companies. He developed this unique R&D consortium of Aluminum Companies, Universities, State and Federal Governments and the National Laboratories.

Subodh obtained his B.Tech. (Bihar Institute of Technology, Sindri, Bihar, India-1969), M.Tech. (Indian Institute of Technology, Kanpur, India ---1971) and Ph.D. (The University of Michigan, Ann Arbor, Michigan, USA--1974) all in Metallurgical Engineering. He also obtained his MBA at the University of Pittsburgh, Pittsburgh, Pennsylvania, USA, in 1982. He is a registered Professional Engineer in the States of Kentucky and Pennsylvania, USA. He is also a graduate of the Executive Development Program from the University of Tennessee, Knoxville, Tennessee, USA (1992).

Subodh is very active and well recognized in the professional societies and aluminum industry. He just received the prestigious Distinguished Aluminum Service award at the Minerals, Metals & Materials Society's annual meeting in March 2000 at Nashville Tennessee. He also serves as the Chairman of the society's Light Metals Division. He has organized several symposiums in Aluminum Metallurgy, Automotive Applications, and Packaging Alloys. He is the Chairman of the Technical Advisory Committee of the Aluminum Association based in Washington, D.C., USA.

Subodh holds 20 US Patents (and its counter patents in several countries) in the field of aluminum process and chemical metallurgy and coal processing. He has edited 5 books in the science and technology of aluminum. He has also published 10 papers in areas of carbon, coal, and aluminum metallurgy.

Subodh worked for the Aluminum Company of America (ALCOA) from 1974 - 1981 as Senior Scientist responsible for developing new aluminum refining and smelting processes and the production of coal based carbon anodes. He joined ARCO Aluminum Inc. in 1981 and had progressed to his last position of Vice President of Technology and New Products. He directed all the technical activities of producing aluminum can sheet alloys for his company, which is the leading can sheet producer in the world. He worked with several leading universities to carry out his research and development. He was the chairman of the ALCAR consortium, which developed a non heat treatable aluminum alloys for automotive body sheet. He left ARCO Aluminum in 1999 to organize and start Secat, Inc.

Dr. Robert K. Dixon, Ph.D.

Deputy Assistant Secretary, Office of Power Technologies, EE-10, U.S. Department of Energy

Dr. Robert K. Dixon is Deputy Assistant Secretary, Office of Power Technologies, U.S. Department of Energy (DoE). He has more than 20 years of energy and environment experience with three federal agencies, the private sector and academia. Dr. Dixon manages the largest renewable energy research and development program in the world.

Dr. Dixon earned B.S., M.S. and Ph.D. in Biochemistry from the University of Missouri, Columbia, Missouri. He was employed by the Allied Corporation and managed a large-scale research, development and technology deployment program for four years. He is the author of two U.S. patents for products that eventually became large profit centers for Allied Corporation (now Honeywell/General Electric).

Dr. Dixon was a tenured Professor at the University of Minnesota and Auburn University from 1982 to 1989. He was competitively awarded an Exxon Fellowship in 1984 and a Smithsonian Fellowship in 1985. Dixon also served as a Visiting Professor at Oxford University, United Kingdom, Humboldt University, Germany, Delhi University, India and Kasetsart University, Thailand during the 1980s. He is the author or co-author of seven books and over 125 scholarly journal articles on energy and environment science and policy topics. He was a consultant to the Office of Science and Technology Policy (OSTP) during the Reagan Administration.

The U.S. Agency for International Development (AID) and Winrock International employed him in 1986 to manage AID sponsored renewable energy programs in Asia. During this period he helped develop AID's network of Renewable Energy Program Support Offices (REPSO) and led energy policy reform efforts in 11 countries. Dixon led or developed energy and environment projects, sponsored by various bilateral (e.g., USDA, NASA) and multilateral (e.g., UNDP, World Bank, UNEP) organizations in over 80 countries worldwide (1982 to present).

Dr. Dixon co-founded Plant Health Care, Inc. in 1987. This biotechnology research, development and deployment firm markets or licenses processes and products in all 50 U.S. states and more than 30 foreign countries.

In 1989, Dixon joined the U.S. Environmental Protection Agency's (EPA) Office of Research and Development as a Senior Scientist. He led a national research and development program to support the Clean Air Act and Amendments. In 1991, Dixon was seconded to EPA's Policy Office to support the Administrator and the Executive Office of the U.S. President (Bush Administration) in preparation for the 1992 UN Conference on Environment and Development (Earth Summit). He was awarded EPA's bronze medal for his contributions in 1992. He was an adjunct Professor at Oregon State University from 1989 to 1997.

Dr. Dixon led two Presidential Initiatives: U.S. Country Studies Program (1992 to 1998) and the U.S. Initiative on Joint Implementation (1995 to 1998) to advance U.S. strategic interests in the UN Framework Convention on Climate Change (FCCC). Dixon has served on the U.S. negotiating team for the UN FCCC since 1990. He has served in a variety of senior U.S. diplomatic assignments, has lived in six countries during his career, and has a broad foreign language capability.

In 1997, Dr. Dixon joined DOE's Office of Energy Efficiency and Renewable Energy (EERE). At DOE he has been engaged in policy analysis, research and development in several areas including energy efficiency, renewable energy, power delivery systems, electricity sector restructuring, sustainable development and international programs. Dr. Dixon lectures at the Johns Hopkins University Paul H. Nitze School of Advanced and International Studies (SAIS) and appears on public television programs such as the Discovery Channel. Dixon has been an advisor to Ted Turner's UN Foundation, the Soros Foundation, the International Foundation for Science, CARE and other philanthropic, development and scientific organizations.

Jay Epstein

President and Founder, Health-E-Community Enterprises of Virginia, Inc.

Homes That Breathe? Energy Efficient Homes? Affordable Homes? Enhanced Indoor Air Quality? Green Building Techniques? Sustainable Homes? Are they all related? Is it possible to build not only a house but also an entire community that incorporates these techniques. Would the general public understand, appreciate and buy a home that is both affordable and encompasses these ideas at the same time?

Jap Epstein, Former President and Founder of Gabriel Enterprises started answering those questions in 1991. Jay noticed a gap in the local housing market and sought to reduce it. There were homes in the market that were affordable and there were homes that were energy efficient; but none that were both. Jay assembled a team of experts and began his vision to bring Energy Efficient homes to the general public in the affordable home sector. It started with a 44-lot subdivision in Newport News, Virginia. A few years later an 88-lot subdivision comprised of homes that were 30% more efficient than a modern energy code home. To date, an additional three subdivision with a total of 289 homes have been added to the mix.

Each addition to Jay's vision has its own story. The stories include: in-fill developments, National Award winning developments and single-family developments in Virginia and Georgia. In sort, the home building techniques introduced by Jay are able to be adapted to a variety of special developments. Jay Epstein has now founded Health-E-Community Enterprises of Virginia, Inc. to continue this vision.

Jap Epstein won two "National Energy Value Housing Awards" from the National association of Home Builders (NAHB) in 1999 for his use of energy saving techniques in the affordable and

production home markets. Below are excerpts from the Energy value statement that outlines the basics of Jay's goals. As Founder and Former President, he led Gabriel enterprise along the path that eventually won the company National Awards.

- Create a building that ensures a healthy environment for its occupants thereby promoting health for future generations.
- Construct a building that has high levels of comfort and low total energy consumption during its lifetime.
- Construct a building that is durable thereby reducing future waste and depletion of natural resources.
- Design a project with approaches that the building team can readily understand and adopt while not increasing construction costs.

The completed project represents a home with indoor air quality enhanced tenfold with heating and cooling energy consumption reduced by 40% as compared to a standard model energy code home. The home provides high levels of comfort for its occupants who are typically entry-level homebuyers that are normally neglected by the residential construction industry. By linking energy conservation, resource efficiency and health house technology, Jay feels that the "Health E" home demonstrates that it is possible to use the cost savings that accrues from innovative new construction technology and design (not to mention reduced energy usage) to offset the added cost of construction. The use of building techniques such as those techniques used in the building of a "Health E" home is expected to significantly improve the quality of life in affordable housing. The success of the initial project has led to the determination of standardize this building process and to use the process in all current and future subdivisions.

What began as a vision to bring energy efficiency to the entry-level homebuyer grew into a collaboration between Jay Epstein and The American Lung Association of Virginia. This collaboration allows Jay Epstein to offer a home with substantial improvement in the indoor air quality as compared to other homes offered to the general public.

Jap Epstein has generated a fair amount of publicity over the years due to his innovative construction techniques and cutting edge designs. Numerous lending institutions ranging from mortgage brokers to large banks to Fannie Mae have all wanted to get involved with Jay Epstein. Health-E-Community Enterprises of Virginia, Inc. is looked at as a company that genuinely cares about the families buying their homes in the affordable single-family home sector. As a result of the partnership between Jay Epstein and the various lending institution, the buyers of the "Health-E-Community" homes have a variety of options at their disposal from which to finance their new homes.

Jap Epstein is currently working with the building Science Corporation to refine his companies building techniques. Jay's involvement with the Department of Energy Building America program created the First Health Energy Efficient Homes now being offered in an Affordable Community in Metro Atlanta known as Fairburn Commons designed to heat and cool for less than dollar a day.

Awards and Recognitions

- 1997 - National Energy Value Award-Affordable Homes in the Moderate Climate Region
- 1998 - Peninsula Housing and Builders Association's Outstanding Contribution to Affordable Housing
- 1999 - National Energy Value Award-Production Homes and Affordable Homes in the Moderate Climate Region
- 1999 - Corporate Partner Award-American Lung Association of Virginia
- 1999 - Governor's Achievement award

- 2000 - Recognition by the secretary of Energy for the Build America Homes at Fairburn Commons
- Energy Star Participant
- Southeastern Housing & Community Development Advisory Council of Fannie Mae
- Build America Partner

David Garman

Assistant Secretary, Energy Efficiency and Renewable Energy, U.S. Department of Energy

David Garman was nominated by President George W. Bush to serve as Assistant Secretary on April 30, 2001 and was confirmed unanimously by the United States Senate on May 25, 2001. He assumed the position after being sworn in by Secretary Abraham on May 31, 2001.

Assistant Secretary Garman previously served in a variety of positions on the staff of two U.S. Senators and two Senate Committees during a career spanning nearly 21 years. Most recently, Mr. Garman served as Chief of Staff to Alaska Senator Frank H. Murkowski. Mr. Garman also served on the professional staff of the Senate Energy and Natural Resources Committee and the Senate Select Committee on Intelligence.

Throughout his career, Mr. Garman's work has focused mainly on energy and the environment. For example, while serving on the Senate Select Committee on Intelligence, Mr. Garman worked in the newly emerging area of environmental intelligence and security," working on issues such as global climate change, transboundary pollution, and regional environmental threats from the Former Soviet Union. While on the staff of the Energy and Natural Resources Committee, Mr. Garman's portfolio included energy research and development, science and technology, and global climate change.

Mr. Garman also served as a U.S. Senate observer at virtually all of the major negotiations under the United Nations framework Convention on Climate Change from 1995-2000.

Mr. Garman holds a Bachelor of Arts from Duke University and a Master of Science in Environmental Sciences from the Johns Hopkins University.

Mark Ginsberg

Deputy Assistant Secretary, Office of Building Technology, State and Community Programs, U.S. Department of Energy

Mark Ginsberg is Deputy Assistant Secretary for the Office of Building Technology, State and Community Programs (BTS). In that position, Mr. Ginsberg oversees a comprehensive set of programs to make buildings, equipment and appliances more energy efficient; support state, community and low income energy programs; and pave the way for a healthy and prosperous future through high efficiency research and development, building codes and appliance standards. With a staff of 74 and a budget request of \$369 million for Fiscal Year 2002, BTS utilizes partnerships with industry, states, national energy laboratories, universities, the Department's field structure and regional offices to strengthen and leverage its capabilities.

From December 1991 until July 1997, Mark directed the Federal Energy Management Program which leads the Federal government's effort to reduce its energy consumption 30%, and which can save American taxpayers \$1 billion every year.

Prior to joining DOE in 1991, Mr. Ginsberg served as Director of the Arizona Energy Office, where he earned a reputation for aggressive energy policy, solar and community energy programs, emergency preparedness and economic development. He helped found and served as a Board Member and officer of the National Association of State Energy Officials. He chaired the Western

Interstate Energy Board and served on the Board of the Interstate Solar Coordination Council, forerunner of the Interstate Renewable Energy Council.

John A.S. Green, Ph.D.
Consultant

For the past 2 years, John Green has served as a consultant to the Aluminum Association and the Al industry, as well as to the Department of Energy.

For the prior 5 years, he was VP-Technology at the Aluminum Association, the trade association for the North American industry, where he was instrumental in developing the series of technology roadmaps for the industry.

For the prior 29 years, he was with Lockheed Martin and its predecessor, Martin Marietta Corporation. Previously, he had been Director of Advanced Materials for Lockheed Martin, and before that, Director of R&D for Martin Marietta Aluminum Corporation, a wholly-owned subsidiary company.

John Green received his Ph.D. from The Queen's University of Belfast, N. Ireland in electrochemistry, and conducted post doctoral studies at both Mellon Institute, Pittsburgh, and at the University of Newcastle upon Tyne, England. He has published widely in fields of corrosion, materials science and aluminum technology.

Kevin Green
Engineer, DOT's Volpe Center in Cambridge

Kevin Green is an engineer at DOT's Volpe Center in Cambridge. He has represented DOT at UNFCCC sessions, led an analysis of the infrastructure and economic implications of next-generation vehicles, and managed several research projects initiated by DOT's Center for Climate Change and Environmental Forecasting. Before joining DOT, Mr. Green worked as an engineer at NESCAUM and, before that, EPA's emissions laboratory in Ann Arbor. In those positions, he was involved with various modeling, technology development, and regulatory efforts. Mr. Green received undergraduate and Master's degrees in Applied and Engineering Physics from Cornell University in 1989 and 1990.

David L. Greene, Ph.D.
Corporate Fellow, Oak Ridge National Laboratory

David Greene, Corporate Fellow of Oak Ridge National Laboratory, has spent over 20 years researching transportation and energy policy issues for the U.S. government. Research interests include energy demand modeling, economic analysis of petroleum dependence, modeling market responses to advanced transportation technologies and alternative fuels, and economic analysis of policies to mitigate greenhouse gas emissions from transportation. Dr. Greene earned a B.A. degree from Columbia University (1971), an M.A. from the University of Oregon (1973), and a Ph.D. in Geography and Environmental Engineering from The Johns Hopkins University (1978). He has published over 150 articles in professional journals, contributions to books and technical reports.

Roy E. Hamme
Manager, Environment, Health and Safety Issues in the Corporate Environment, Health and Safety Department Duke Energy

Mr. Hamme has served in a wide range of capacities in his 27 years with Duke Energy, where he is currently Manager, Environment, Health and Safety Issues in the Corporate Environment,

Health and Safety Department. He currently directs Duke Energy's climate change program, an effort which increasingly includes activities in Australia, Canada and Latin America as well as the United States. He is also responsible for the early identification of emerging global environmental, health and safety issues and assuring that the key issues are appropriately addressed by the Corporation. In addition, he has been active in various aspects of environmentally-related R&D including serving as an advisor to EPRI, leading internal R&D studies at coal-fired power plants, and developing Duke Energy's EHS R&D strategy.

Michael Harper

Chief of the Division of Productivity Research, Office of Productivity and Technology, U.S. Bureau of Labor Statistics

Mr. Harper received a master's degree in economics from the University of Wisconsin-Madison in 1976. He joined the Bureau of Labor Statistics and participated in developing multifactor productivity measures, first published in 1983. He became Chief of the Bureau's Division of Productivity Research in 1990. This group publishes the quarterly measures of nonfarm business output per hour. Mr. Harper served on the steering committee of the Canberra Group on Capital Stock Measurement and was recently elected to the executive committee of the Conference on Research in Income and Wealth. His research interests are capital measurement and problems with available data that can limit the usefulness of productivity statistics.

Abraham E. Haspel

Deputy Assistant Secretary for Planning, Budget and Management, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

Dr. Abraham E. Haspel is the Deputy Assistant Secretary for Planning, Budget and Management of the Office of Energy Efficiency and Renewable Energy (EERE) of the U.S. Department of Energy. He was appointed to this position in September 1999. In this capacity, he serves as the Chief Operating Officer of EERE, an organization of 570 employees and a budget of \$1.2 billion that is dedicated to enhancing the use of energy efficiency technologies and renewable energy sources. He is responsible for ensuring the efficient and effective implementation of overall EERE policies, programs and resources. He served as the Acting Director of EERE during the last Presidential transition from January through May 2001.

Dr. Haspel was a member of the U.S. delegation to the negotiations under the U.N. Framework Convention on Climate Change from 1993 to 2001, and directly involved in the development of Administration positions on climate change since 1991. He served as the chair of the Climate Technology Initiative from 1998 through 2000.

Dr. Haspel has twice received the Presidential Rank of Distinguished Executive, the highest award given a career civil servant, in 2001 and 1994, and also has twice received the Presidential Rank of Meritorious Executive, the second highest award given a career civil servant, in 1998 and 1993. He received the gold secretary's Award, the highest award given in the department of Energy, both in 2001 and 1997.

Brian M. Henderson

Director, Energy Efficiency Services, NYSERDA

Mr. Henderson has 28 years of experience in the energy efficiency field for both public and private sector organizations as a senior manager, department head, project manager, and engineer. He is currently the Director for Energy Efficiency Services at the New York State Energy Research and Development Authority (NYSERDA). Mr. Henderson directs a staff of 30 engineers, architects and analysts providing a portfolio of technical and financial assistance programs and services, with an annual budget of over \$50 million. These programs and services are assisting thousands of businesses and institutions across the State to reduce facility energy

costs, implement load management strategies, and use alternative fueled vehicles. Mr. Henderson is also directing the implementation of the Governor's recent initiative on AGreen and Clean State Buildings and Vehicles@.

Prior to joining NYSERDA, Mr. Henderson was the Director of the Technical Services Bureau at the New York State Energy Office. He was also a project engineer in the Energy Systems Group of Grumman Aerospace Corporation.

Affiliations

Mr. Henderson is also active in several energy related local, regional and national organizations. These include:

- Board of Directors, National Association of State Energy Officials (Washington, DC);
- Board of Directors, Northeast Energy Efficiency Partnerships, Inc.(Lexington, MA);
- Past Chairman, Energy Efficient Procurement Collaborative, Inc. (Albany, NY);
- Board of Directors, Consortium for Energy Efficiency (Boston, MA); and,
- Board of Directors, New Buildings Institute (White Salmon, WA).

Educational Experience

M.S., Mechanical Engineering, Rensselaer Polytechnic Institute

B.S., Physics, Indiana University of Pennsylvania

Gunnar Hovstadius, Ph.D.

Gunnar Hovstadius received Bachelor and Master of Science Degrees from the University of Upsala (Sweden) and a Doctor of Science degree in fluid Dynamics from the Royal Institute of Technology in Stockholm (Sweden).

He joined ITT Flygt in Solna (Sweden) in 1981, where he headed R&D for the company's extensive pump program, including its hydro-generator program.

In 1985, he moved to ITT Flygt (USA), assuming the position of Technical Manager for ongoing development activities. He also acted as liaison with the parent company and other ITT companies.

In October 1996, Dr. Hovstadius was appointed Director, Technology, ITT Fluid Technology Corporation.

Prior to joining ITT Flygt, he worked at the Aeronautical Research Institute of Sweden as a Research Engineer and at Alfa Laval (Sweden) as head of the Fluid Dynamic Research Group.

He became involved in the United States Department of Energy MOTOR CHALLENGE PROGRAM early in 1995. Dr. Hovstadius has presented many Seminars throughout the United States on behalf of the United States Department of Energy devoted to "ENERGY SAVINGS IN PUMP STATIONS." He has also led the design of two DOE SHOWCASES in the United States, demonstrating substantial savings potential in pump stations.

He is a member of ASME and serves on several Committees of the Hydranlic Institute. At present, he chairs the Hydraulic Institute's Working Group for Energy Efficiency and Life Cycle Cost as well as HI's Standards Committee.

Hillard G. Huntington, Ph.D.

Executive Director, Energy Modeling Forum (EMF)

Hillard G. Huntington is the Executive Director of the Energy Modeling Forum (EMF) at Stanford University, where he conducts studies to improve the use of analysis for understanding energy and environmental markets. He has directed recent EMF studies on energy demand and energy efficiency, restructured electricity industries and North American natural gas markets. Recent publications include a special issue of Utilities Policy that compared transmission pricing in different countries and a book, Designing Competitive Electricity Markets. He received a B.S. from Cornell University and a Ph.D. in economics from the State University of New York at Binghamton.

William J. Keese

Chairman, California Energy Commission

William J. Keese is the Chairman of the California Energy Commission, the State's primary energy policy and information agency. Bill also chairs the National Association of State Energy Officials and is Vice-Chair of the Western Interstate Energy Board. He represents California on a number of national energy organizations and has testified before Congress on a wide range of energy issues. Mr. Keese is a graduate of Loyola University Law School.

Sharon H. Kneiss

Vice President, Regulatory Affairs, American Forest & Paper Association

Sharon H. Kneiss joined the American Forest & Paper Association as Vice President, Regulatory Affairs in October 1999. Sharon and her staff are responsible for environment, technology and energy policy. Prior to moving to AF&PA Sharon was the Federal Affairs Representative for environmental issues with Chevron Corporation. She also held the position of Director of Federal and Regulatory affairs and manager of Investor Relations for Hercules, Incorporated.

Sharon holds a B.S. in Chemistry from the University of Scranton and an MBA from the University of Pittsburgh. She began her career as a chemist for Gulf Oil in Pittsburgh, PA. She also held positions in environmental policy and advocacy at the Chemical Manufacturers Association and the American Petroleum Institute.

Sharon is a native of Scranton, Pennsylvania, is married to John Kneiss and has one son. She enjoys golf and watching her son's all-star baseball team.

John A. "Skip" Laitner

Senior Economist for Technology Policy, EPA Office of Atmospheric Programs

Skip Laitner is a resource economist with 30 years experience in public policy analysis, economic impact studies, and economic development planning. He currently serves as the Senior Economist for Technology Policy for the EPA Office of Atmospheric Programs. In that capacity, Skip was awarded EPA's 1998 Gold Medal for his work with a team of other EPA economists that evaluated the impacts of different strategies that might assist in the implementation of greenhouse gas emissions reductions.

Skip is a frequent lecturer and has appeared as an expert witness in more than four dozen legal hearings and adjudicatory proceedings throughout the country. He has testified on a variety of issues before legislative committees in Congress and in numerous states. He has conducted technical seminars in diverse places as Australia, China, Germany, Canada and Korea. In addition to his expert testimony, Skip has written a large number of papers and reports in the fields of community and economic development, decision sciences, energy and utility costs, and natural resource issues. He recently served as an adjunct faculty member at the Virginia Polytechnic Institute and State University, teaching a graduate course on the Economics of

Technology in the Science and Technology Studies program. Skip has a master's degree in resource economics.

Henry Lee

Jaidah Family Director, Environment and Natural Resources Program, Harvard University's John F. Kennedy School of Government

Henry Lee is the Jaidah Family Director of the Environment and Natural Resources Program at Harvard University's John F. Kennedy School of Government, and Co-Chair of the School's Program on Infrastructure in a Market Economy. He has served on numerous state, federal, and private advisory committees on both energy and environmental issues and has worked with private and public organizations, including the InterAmerican Development Bank, ISO New England, the North American Commission for Environmental Cooperation, the National University of Singapore, the State of Sao Paulo, the U.S. Departments of Energy and Interior, and the EPA. He has worked extensively on issues at the intersection of electricity and air pollution and has published numerous articles, chapters, and papers on this topic. In the last year, he has worked on distributive electricity technology, electricity reform in Russia and Brazil, and global climate change.

Vivian E. Loftness, FAIA

Professor of Architecture, Carnegie Mellon University, Senior Researcher, Center for Building Performance and Diagnostics

Vivian E. Loftness is an international sustainability and building performance consultant for commercial and residential building design. She has edited and written a wide range of publications on advanced building systems, energy, climate and regionalism in architecture, as well as design for performance in the workplace of the future.

Over the past ten years, Vivian Loftness has focused on advanced architectural research on the performance of a range of building types, from museums to high tech offices, and the innovative building delivery processes necessary for improving quality in building performance. Supported by a university-building industry partnership, the Advanced Building Systems Integration Consortium, she is a key contributor to the development of the Intelligent Workplace - a living laboratory of commercial building innovations for performance, along with authoring a range of publications on international advances in the workplace.

In the Center for Building Performance at Carnegie Mellon, Ms. Loftness has been actively researching and designing high performance office environments with DOE, DOD, Department of State, GSA, NSF and major building industries such as Steelcase and Johnson Controls. She has served on five National Academy of Science panels as well as being a member of the Academy's Board on Infrastructure and the Constructed Environment. Her work has influenced both national policy and building projects, including the Adaptable Workplace Lab at the U.S. General Services Administration and the Laboratory for Cognition at Electricity de France.

Vivian Loftness has a Bachelors of Science and a Masters of Architecture from MIT and is a registered architect.

John H. Marburger, III, Ph.D.

Director, Office of Science and Technology

John H. Marburger, III, Director of the Office of Science and Technology. He was formerly the Director of the U.S. Department of Energy's Brookhaven National Laboratory and President of Brookhaven Science Associates. He served as President and Professor from 1980 to 1994 and as a University Professor of Physics and Electrical Engineering from 1994 to 1997 at the State University of New York at Stony Brook. Dr. Marburger served as the Dean of the College of

Letters, Arts and Sciences at the University of Southern California from 1976 to 1980. He has been a member of numerous professional, civic and philanthropic organizations including the Universities Research Association, the Advisory Committee to the New York State Senate Committee on Higher Education and the Board of Directors of the Museums at Stony Brook. He is a graduate of Princeton University and received a Ph.D. in Applied Physics from Stanford University.

David C. Mowery, Ph.D.

Professor of Business, Walter A. Haas School of Business, University of California Berkeley

David Mowery is Milton W. Terrill Professor of Business at the Walter A. Haas School of Business at the University of California, Berkeley, and Director of the Haas School's Ph.D. program. He received his undergraduate and Ph.D. degrees in economics from Stanford University and as a postdoctoral fellow at the Harvard Business School. Dr. Mowery taught at Carnegie-Mellon University, served as the Study Director for the Panel on Technology and Employment of the National Academy of Sciences, and served in the Office of the United States Trade Representative as a council on Foreign Relations International Affairs Fellow. He has been a member of a number of National Research Council panels, including those on the Competitive Status of the U.S. Civil Aviation Industry, on the Causes and Consequences of the Internationalization of U.S. Manufacturing, on the Federal Role in Civilian Technology Development, on U.S. Strategies for the Children's Vaccine Initiative, and on Applications of Biotechnology to Contraceptive Research and Development. His research deals with the economics of technological innovation and with the effects of public policies on innovation; he has testified before Congressional committees and served as an adviser for the Organization for economic Cooperation and Development, various federal agencies and industrial firms. Mr. Mowery has published numerous academic papers and has written or edited a number of books including *Paths of Innovation: Technological Change in 20th-Century America*; *The International Computer Software Industry: A Comparative Study of Industry Evolution and Structure*; *U.S. Industry in 2000*; *The Sources of Industrial Leadership*; *Science and Technology Policy in Interdependent Economies*; *Technology and the Pursuit of Economic Growth*; *Alliance Politics and Economics*; *Multinational Joint Ventures in Commercial Aircraft*; *Technology and Employment: Innovation and Growth in the U.S. Economy*; *The Impact of Technological Change on Employment and Economic Growth*; *Technology and the Wealth of Nations*; and *International Collaborative Ventures in U.S. Manufacturing*. His academic awards include the Raymond Vernon Prize from the Association for Public Policy Analysis and Management, the Economic History Association's Fritz Redlich Prize, the *Business History Review's* Newcomen Prize, and the Cheit Outstanding Teaching Award.

Steven Nadel

Executive Director, American Council for an Energy-Efficient Economy (ACEEE)

Steve Nadel is the Executive Director of the American Council for an Energy-Efficient Economy (ACEEE), a non-profit research organization that works on programs and policies to advance energy-efficient technologies and services. Steve was recently promoted to this position, following many years serving as Deputy Director and as director of ACEEE's Utilities and Buildings programs. Prior to joining ACEEE he planned and evaluated energy-efficiency programs for New England Electric, coordinated energy programs for the Massachusetts Audubon Society, and worked on a variety of energy conservation programs serving low-income neighborhoods in New Haven and Hartford, CT. Steve has worked in the energy efficiency field for more than 20 years and has over a 100 publications on energy-efficiency subjects.

Richard G. Newell, Ph.D.

Fellow, Resources for the Future

Richard G. Newell is a Fellow at Resources for the Future. He has been on the Resources for the Future staff since 1997. Newell's research focuses on the economic analysis of policy design and performance, with a particular interest in incentive-based policy and technological change. His research applications encompass a range of environmental and natural resource issues, including energy-efficiency, climate change, air pollution, and fisheries management; his methodological approaches include econometric analysis, modeling, simulation, and cost-benefit analysis. Newell received his Ph.D. in public policy from Harvard University, where he specialized in environmental and natural resource economics. He also holds a master in public policy and urban and regional planning from Princeton's Woodrow Wilson School of Public and International Affairs, and undergraduate degrees in engineering and philosophy.

John F. Nunley, III

Director of State Energy Programs, Wyoming Business Council

Mr. Nunley is currently the Director of State Energy Programs within the Wyoming Business Council. Prior to this, John was the Director of the Energy/Minerals Division, of the Wyoming Business Council, and the Director of the Wyoming Energy and Conservation Office at the Wyoming Department of Commerce. In these positions, he has worked closely with the Governor of Wyoming and the WBC Board of Directors in developing and introducing energy conservation related legislation to the Wyoming Legislature and in proposing and implementing numerous demonstrations in the sustainable and renewable energy arenas, as well as, energy efficient lighting projects and upgrades in state buildings using petroleum violation funds. He has served two terms as the Treasurer of the National Association of State Energy Officials, and is in his second term as the Vice-Chairman. He is a member of the State Energy Advisory Board, a US congressional board which advises DOE. Mr. Nunley also serves at the pleasure of the Governor on the Western Interstate Energy Board, and is the Board's immediate past Chairman. Mr. Nunley has an extensive background in the oil and gas industry as it relates to electrical needs. He holds a bachelor's degree in electrical engineering from the University of Wyoming and a master's degree in environmental engineering from the University of Cincinnati. Mr. Nunley is married and has three children.

Joseph C. Oberle (Joe)

General Manager - Global Electronics & Ballast, General Electric Lighting

Education

Graduated from Kent State University, located in Kent, Ohio, with a Bachelor of Science Degree

Employer

General Electric Lighting
Headquarters - Nela Park
Cleveland, Ohio

Length of Employment

15 years

Current Position

General Manager - Global Electronics & Ballast

Time in Position

5 years

Randall M. Overbey

President, Alcoa's Energy Division

Randall M. (Randy) Overbey as president of Alcoa's Energy Division has overall responsibility for Alcoa's power generation facilities, major power contracts, and for growing Alcoa's energy portfolio in North America. In addition he is responsible for the acquisition of natural gas and electricity in North America utilizing Alcoa's joint venture company, Pace Global Energy Services. He also is accountable for providing support as needed to Alcoa's international locations on energy matters.

Randy joined Alcoa in 1968 following graduation from the University of Tennessee, where he obtained a bachelor's degree in mechanical engineering. He served in a series of technical and engineering assignments with the company until 1981 when he went on assignment as a congressional assistant for the U.S. government's Ways and Means Subcommittee on Trade in Washington, D.C. Following this one-year assignment, Randy was named engineering manager at Alcoa's Wenatchee (Wash.) facility, then engineering manager at the company's Massena (N.Y.) plant. In 1994, Randy returned to Knoxville, as manufacturing manager of Alcoa's Primary Metals business, subsequently, was named vice president of manufacturing for the business unit before being named to his present position in 1999.

A Tennessee native, Randy was born April 30, 1946. He and his wife, Carol, have two children.

Roger Platt

Senior Vice President and Counsel, The Real Estate Roundtable

Roger Platt is senior vice president and counsel for The Real Estate Roundtable, which in October 1999 became the successor to National Realty Committee. The Roundtable represents the leaders of America's top public and privately owned real estate entities on public policy issues in Washington.

Working closely with The Real Estate Roundtable's Technology and Building Infrastructure Task Force, Mr. Platt communicates to Congress, the Clinton Administration and federal agencies the organization's views on technology issues affecting real estate, including federal policies on building access and energy deregulation. Mr. Platt serves as liaison on technology and building infrastructure issues to the leadership of The Real Estate Roundtable.

Mr. Platt joined National Realty Committee as deputy counsel in 1994. He was named vice president and counsel in 1998, and senior vice president and counsel in 2001. Before joining NRC, Mr. Platt served as a consultant to President Clinton's newly formed Corporation for National and Community Service. Previously, he was a senior associate at the San Francisco law firm of Coblenz, Cahen, McCabe & Breyer, where he specialized in real estate and urban land-use issues.

Before joining Coblenz, Cahen, et al., Mr. Platt was an associate in the real estate department at Bianchi, Paxton, Engel, Keegin & Sherwood, a law firm in San Rafael, California, where he represented a variety of residential and commercial real estate companies.

Mr. Platt is a graduate of Harvard University and the University of San Francisco School of Law. He is a frequent contributor to American Bar Association and other legal and real estate journals. He is a member of the California and District of Columbia bar associations and a member of the Urban Land Institute. Mr. Platt has been listed in the 55th and 56th editions of Who's Who in America.

Anda A. Ray

Director, Public Power Institute

Anda A. Ray is the Director of the Public Power Institute. The Institute was recently established

by the Tennessee Valley Authority to be a focal point for bringing together new ideas and technologies that improve the way power is produced, delivered, and used to support public benefit objectives.

Mrs. Ray has a Bachelor's Degree in Nuclear Physics from Auburn University and a Master's Degree in Solid State Physics from Emory University. She conducted research at AT&T in the area of lasers and fiber optics. She began her career at TVA in Nuclear Power and has since worked in various capacities, from power generation, research and development, to several corporate strategy development initiatives.

She also serves on the several Board of Directors including EPRI Solutions, a for-profit subsidiary of the Electric Power Research Institute and a fuel cell company.

Bernard I. Robertson

Senior Vice President - Engineering Technologies & Regulatory Affairs, DaimlerChrysler Corporation

Bernard Robertson was elected an officer of Chrysler Corporation in February 1992. He was appointed Senior Vice President coincident with the merger of Chrysler Corporation and Daimler-Benz AG in November 1998, and was named Senior Vice President - Engineering Technologies and Regulatory Affairs in January 2001.

He is responsible for all Chrysler Development System and Vehicle Engineering Operations, Technical Computing Operations, Liberty and Technical Affairs Research group, Scientific Labs and Proving Grounds, and the Partnership for a New Generation of Vehicles (PNGV), and FreedomCAR. In addition, he is responsible for Regulatory analysis and compliance, including Safety and Emissions, both mobile and stationary sources.

He reports to the Executive Vice President of Chrysler Product Development and Quality.

Mr. Robertson joined Chrysler Corporation in England in 1965 and has held positions in Vehicle Emissions, Manufacturing and Assembly, Product Planning, Brand Management, and Product Development. Three earlier assignments were Vice President-Jeep & Truck Engineering and General Manager-Jeep/Truck Operations; General Manager-Jeep & Truck Engineering; and Director-Product Strategy Planning.

Robertson is a member of the National Academy of Engineering, a Fellow of the Institute of Mechanical Engineers (UK), a Chartered Engineer (UK), and a Fellow of the Society of Automotive Engineering. He is a member of the Board of Directors of the Coordinating Research Council, the Greenfield Coalition, and a member of the Operating Councils of USCAR, PNGV and FreedomCAR. He is a Steering Committee member of NADS, ARC, and MIT Mobility Consortium.

Mr. Robertson is an aviation enthusiast, holds a current Private Pilot's license, and owns two aircraft. He holds a M.B.A. degree from Michigan State University, 1976 and a Masters Degree, Automotive Engineering, Chrysler Institute, 1967, and a Masters Degree, Mechanical Sciences, Cambridge University, England 1967.

Joseph M. Roop

Staff Scientist, Pacific Northwest National Laboratory

Dr. Roop is a Staff Scientist with Pacific Northwest National Laboratory. His professional career includes a broad range of experience in the analysis and modeling of economic and policy systems, both domestically and internationally. He serves as the project manager for the

development of a set of indicators of energy intensity for the economy as a whole and for each of the major end-use sectors - industry, building, transportation, and electricity. Although his experience is diverse, a common theme, the economics of industrial energy use, characterizes his research and project management activities over the past two decades. He is currently engaged in a number of projects focused on efficient use of energy in industry and has published a number of studies that examine energy use within the inter-industry structure of the U. S. economy.

Dr. Roop currently manages the Economic and Environmental Analysis Program for the Office of Industrial Technologies of the Department of Energy's Office of Renewable Energy and Energy Efficiency. This program regularly publishes a study of the impacts of OIT research and development activities, most recently in January 2001. He has conducted studies for other offices within DOE and for non-DOE agencies such as FEMA, IRS, BPA, and EPA.

Dr. Roop joined PNNL in 1981 after working for eight years at the University of California in Berkeley, the Economic Research Service of the U. S. Department of Agriculture, and Evans Economics Inc., in Washington, D. C. While with PNNL, he served for 17 months as a staff member in the Department's Policy Office and was seconded to the International Energy Agency for nearly two years. Dr. Roop received a Ph. D. in Economics from Washington State University in 1973, and is an adjunct professor of economics at the Tri-Cities Campus of WSU.

Neil A. Schilke

General Director Engineering, Corporate Staffs, General Motors Corporation

Neil A. Schilke, General Director Engineering, Corporate Staffs, General Motors Corporation. Mr. Schilke began his career in the manufacturing area with Chevrolet Motor Division and then joined the GM Research Laboratories (GMR). At GMR, he was an active researcher and manager in a number of technical areas including conventional and advanced powertrains, vehicle aerodynamics, acoustics, and vehicle control systems. In 1984, he became manager of GM Project Trilby, a corporate project to establish integrated vehicle control and systems engineering capabilities for GM. In 1988, he moved to the Chevrolet-Pontiac-Canada Car Group to form the GM Systems Engineering Center (SEC), which became part of the New Vehicle & Systems Group in 1991 and then the North American Operations (NAO) Engineering Center in 1992. Mr. Schilke became director of Energy, Noise & Vibration and Systems Engineering for NAO of General Motors in 1994, and became General Director of Engineering and Product Planning for GM of Canada Limited in 1996. He assumed his current responsibilities in January 2001.

Mr. Schilke holds three patents. He is the author of numerous technical papers related to automotive technologies, one of which received the Institution of Mechanical Engineers' (IMechE) Clifford Steadman Award. He has received two SAE awards for oral presentations of his work. In addition, Mr. Schilke has been co-editor of two SAE special publications on mobility technologies. He has been honored for his technical achievements by election as a Fellow of SAE and by receiving the 1992 Edward N. Cole Award for Automotive Engineering Innovation. Mr. Schilke was honored for his contributions to SAE by receiving the 2001 SAE Medal of Honor Award and by having the SAE Foundation Cup named in his honor. He has also received the Sir Henry Royce Memorial Foundation Award from IMechE.

Mr. Schilke is a member of numerous technical and honor societies, including SAE, the American Society of Mechanical Engineers, Sigma Xi Scientific Research Society, Phi Kappa Phi Honor Society, Tau Beta Pi Engineering Honor Society, and Pi Tau Sigma Mechanical Engineering Honor Society. He is a registered Professional Engineer in the State of Michigan.

He is an active sportsman and community servant. Mr. Schilke is an active alumnus of Cornell University where he earned his Bachelor and Master's degrees in Mechanical Engineering. He is a Past President of the Class of 1962 and is a Member of the Class Council; he is a member of

the University Council; and is a Member and Past Chair of the College of Engineering Advisory Council.

Mr. Schilke is an active member of SAE and has served the Society in a number of capacities including the following: 2001 SAE President; 1998-2000 treasurer; 1994-97 assistant treasurer; 1992-93 & 1987-88 chair - Bylaws Committee; 1991-2001 Finance Committee; 1990-2002 Compensation Committee; 1989-91 and 1994-2002 Board of Directors; 1999 founding director of Foundation Canada; 1995 - present, Foundation Board of Trustees; 1989 and 1992 co-chair - Mobility Technology Planning Forums I and II; 1987-88 Membership Services Board and Non-Financial Audit Committee; 1986-88 Computerization Oversight Committee; 1986-87 SAE Image Committee; 1985-88 chair-Objectives & Strategic Planning Committee; and 1982-85 chair - Public Affairs Committee. Mr. Schilke served on various other committees including: the Engineering Graduate Membership Committee; Automotive Congress and Exposition Committee; and Total Transportation Readers Committee. Mr. Schilke also has held a variety of positions in the Detroit Section including assistant vice chair of the Junior Activity and member of the Section Governing Board.

Mr. Schilke and his wife, Ro, have two children; Kevin and Karen, and two grandsons, Zachary and Jeremy.

Lee Schipper, Ph.D.

Senior Transport Advisor, Shell Foundation

Lee Schipper is co-director of EMBARQ, the Center for Sustainable Transport, at World Resources Institute, Washington, which was established by the Shell Foundation (UK). He was at the Development Centre of the OECD in Paris, France and the Transport Advisor to the Shell Foundation in the winter of 2002, and Global Business Environment in Shell International Petroleum Company, London in the fall of 2001. From 1995 until 2001 he was Senior Scientist at the International Energy Agency, Paris. He retired in 2001 from his post as a Staff Senior Scientist at the Lawrence Berkeley National Laboratory, where he was since 1977.

Lee Schipper is also a member of Global Business Network and a Senior Associate of Cambridge Energy Research Associates. He has been a Fellow at the Industry and Energy Department of the World Bank and a visiting researcher with Group Planning, Shell International Petroleum Company, London, in the mid 1980s. He spent six months at the Swedish Heating Society in Stockholm (1982/3) and one year (1977/8) in Sweden as a Fulbright Scholar at the Beijer Institute in Stockholm and was associated with the Stockholm Environment Institute in the early 1990s. He was Information Specialist at the Energy and Resources Group, Univ. of California, Berkeley, from 1974 to 1977, and is an Associated Faculty with that Group. He obtained his BA in Music from Berkeley in 1968 and his Ph. D. in Astrophysics in 1985. He still leads a jazz quintet from time to time, and recorded "the Funky Physicist" in Sweden in 1973.

Dr. Schipper has a strong focus on transportation, with links to fuels and transportation industries and International transportation NGOs. He led a path breaking effort to link carbon emissions from transport to urban transport problems for the world Bank

(<http://www.iea.org/pubs/free/articles/schipper/flexing.htm>, He led a recent IEA effort to understand the transport / CO2 policies of six member countries

<http://www.iea.org/public/studies/kyoto.htm>) as well as a related effort to improve urban transportation and bus systems in the leading megacities of the developing world. He was a member of the Swedish Board for Transportation and Communications Research for four years, as well as taking part in numerous prestigious international panels and studies on energy and on transportation. He is currently a member of the US Transportation Research Board's Committee on Sustainable Transport.

Dr. Schipper has authored over 100 technical papers and a number of books on energy economics, energy use and energy conservation around the world, and transportation, both in IEA-member economies and in E. Europe and the Developing World. These analyzed the structure of energy use in each main sector of major economies. He led in-depth studies of the energy use patterns of the Nordic Countries, Netherlands, Canada, Australia, and New Zealand for National energy authorities. At the IEA, he developed indicators of economy-wide energy use and carbon emissions (<http://www.iea.org/envissu/index.htm>).

Jim Schultz

Vice President, Environment and Energy, The American Iron and Steel Institute

Effective October 1, 2000, the position of AISI Vice President, Environment and Energy, will be assumed by Jim Schultz. Mr. Schultz presently serves as Energy Manager for Cargill Steel, a position to which he was named in December 1998. Schultz is responsible for energy procurement for Cargill Steel business, which includes all locations of AISI member North Star Steel Company, North Star Recycling and Cragill Steel & Wire. He also manages the procurement of electricity for other Cargill business units.

"We feel extremely lucky to have the talents and experience of Jim Schultz coming on board at this crucial moment in energy and environmental affairs for the steel industry," said Sharkey. "Surging energy prices have brought to the fore the critical need for a comprehensive and coherent energy policy in all three governments representing our NAFTA-wide member companies. At the same time, environmental regulation is in a surge of its own, as the current Administration feels the end coming, so we cannot afford to lose a step in either field. Jim's enthusiasm for taking on this challenging position is as welcome as it is courageous. The members know him, they respect him and they are excited about his joining the team," Sharkey added.

Mr. Schultz joined Cargill in 1967, working on non-steel business units before becoming General Business Manager of North Star Steel Recycling, Inc., the scrap origination and recycling subsidiary of North Star Steel Company in June 1988. In April 1992, he was promoted to Manager of Recycling development and Regulatory Affairs for North Star Steel Company. IN that role he was responsible for environment initiatives and compliance, energy procurement and governmental affairs for North star Steel's 13 steel making and scrap-recycling facilities.

Mr. Schultz is the immediate past Chairman of AISI's Energy Committee, and is an active member of AISI's Climate Change Task Force, the Steel Manufacturers Association Ad Hoc Energy Committee, and a host of coalitions organized around issues related to energy and steel, at both the national and state levels.

The American iron and Steel Institute is anon-profit association of North American companies engaged in the iron and steel industry. The Institute comprises 46 member companies, including integrated and electric furnace steelmakers who produce over three-quarters of North America's raw steel, and 74 associate and affiliate members who are suppliers to or customers of the steel industry.

Terry Surles, Ph.D.

Technology Systems Division Director, California Energy Commission

Dr. Terry Surles is currently Technology Systems Division Director for the California Energy Commission. His division is responsible for two California public goods programs: Renewable Investment program and the Public Interest Energy R&D program. These programs are designed to bring new renewable energy and demand side technologies into the marketplace in order to provide reliable, affordable and safe electricity to the state.

Before joining the Energy Commission, Dr. Surles was the Associate Laboratory Director for Energy Programs at Lawrence Livermore National Laboratory, following his time at the California Environmental Protection Agency as Deputy Secretary for Science and Technology. Dr. Surles was at Argonne National Laboratory for a number of years, holding a number of positions in the energy and environmental technology and evaluation area, with his last position being General Manager for Environmental Programs.

Dr. Surles, is an environmental consultant to industry for Camp, Dresser, and McKee, and holds a Ph.D. in Chemistry from Michigan State University.

James Sweeney

Professor, Management Science and Engineering, Stanford University

James Sweeney, of Stanford University, is Professor of Management Science and Engineering; Senior Fellow, Stanford Institute for Economic Policy Research; Senior Fellow, Hoover Institution on War, Revolution and Peace. His professional activities focus on economic policy and analysis, particularly in energy, natural resources, and the environment.

At Stanford he has served as Department of Engineering-Economic Systems chair, EES-OR department chair, Energy Modeling Forum director, Institute for Energy Studies chairman, and Director of the Center for Economic Policy Research director. He is Senior Fellow of the U.S. Association for Energy Economics and Fellow of the California Council on Science and Technology.

Congressman Zach Wamp

Third District - Tennessee

As he began his eighth year in the U.S. House of Representatives, 3rd District Congressman Zach Wamp expanded his influence and increased his effectiveness as a leader at home in Tennessee and in our nation's capital.

As Tennessee's only Member of the powerful Appropriations Committee, the 44-year-old representative also serves on to the influential Energy and Water Subcommittee. That is where funding originates for essential regional priorities such as the Chickamauga Lock, the \$1.47 billion Spallation Neutron Source in Oak Ridge, the Y-12 nuclear weapons plant, science and research at the Oak Ridge National Laboratory and environmental cleanup throughout the East Tennessee Technology Corridor.

Congressman Wamp continues to serve on the important Interior Subcommittee, which funds all federal lands, including the National Parks, the U.S. Forest Service as well as energy efficiency programs at the Oak Ridge National Laboratory. He also serves on the Legislative Branch Subcommittee, which oversees appropriations for the Congress and the Capitol Building.

During the last seven years, Zach has earned a national reputation as a consistent and powerful advocate for campaign finance reform. In 1998, he was chosen to close the House debate in favor of the most significant reform to pass the House in a generation.

In January 2001, Zach was named co-chairman of the 206-member Energy Efficiency and Renewable Energy Caucus. Few issues are more important to the independence and security of the United States than the availability and affordability of energy.

Congressman Wamp introduced legislation to establish the Moccasin Bend National Historical Site as a separate unit of the National Park System. After maneuvering the legislation through the committee process, the House of Representatives passed his bill on October 23, 2001.

In his first two years in the House, Wamp served on the Transportation Committee, the Science Committee and the Small Business Committee. During his second and third terms, he served on the Appropriations subcommittees that fund the State Department and the Departments of Commerce and Justice as well as the military construction budget. Speaker Dennis Hastert appointed Wamp to leadership roles as diverse as the Bipartisan Chaplain Selection Committee and as Vice Chairman of the Bipartisan Working Group on Youth Violence.

Zach is well known as one of the most effective communicators in Congress. For three years, he was a regular panelist on "The News Hour with Jim Lehrer" and has appeared on NBC's "Meet the Press" and ABC's "Nightline." He has been featured in Newsweek, U.S. News and World Report, The Wall Street Journal and The New York Times.

Last year, he served as president of the Bipartisan House Prayer Group and as the chairman of the National Prayer Breakfast on Feb. 1, 2001. Zach hosted the event and introduced President George W. Bush to the 4000 in attendance and to millions of television viewers around the world.

A Chattanooga native, Zach spent 12 years as a small businessman and commercial real estate broker before coming to Congress. He and his wife, Kim, have a son, Weston, and a daughter, Coty. They are active in the YMCA, Students Taking a Right Stand (STARS), Bethel Bible Village and the Red Bank Baptist Church where Zach teaches a Young Adult Sunday School Class.